

Work Order ID 149090

Tuesday, July 19, 2016 2:45:06 PM

149090

Page 1

Item ID: D4635-2 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fwd Ceiling Panel, RH
 Start Date: 7/12/2016 Start Qty: 4.00 *2.00* ***X*2.00** Cust Item ID:
 Required Date: 7/19/2016 Req'd Qty: 4.00 ***X*2.00** Customer:
 Reference:

Approvals: Process Plan: **DAS 21** Date: **JUL 20 2016** Tooling: Date: Run Start ***NR1***
 QC: **9-89** Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4635	<i>FEEL F M</i>								<i>Pro →</i>
100	HAND FINISHING THERMOFORMING	0.00							DAS 07 9-89
100						<i>x2</i>			
Thermoform	Memo	0.09							<i>16/07/21</i>
Thermoforming Machine	Cut Blanks								
105	Dry Material	0.00							DAS 07 9-89
105						<i>x2</i>			
HandThermo	Memo	0.00							<i>16/07/21</i>
Hand Finishing Thermoforming	Dry Sheet as per QSI022 POLYCARBONATE								

Temp: **245 deg. F** JUL 21 2016
 Time IN: **5:00 PM**
 Time OUT: **6:00 AM** Per.....

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>149096</u> Part No. <u>D4635-2</u> NCR No. _____		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☒</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☒	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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1 49090

Page 2

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 7/12/2016 **Start Qty:** 4.00 ***4***

Cust Item ID:

Required Date: 7/19/2016 **Req'd Qty:** 4.00 ***1***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID	Tool #	Plan Code
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**Accept
Qty**

Reject
Qty

Reject Number

Insp.
Stamp

110

0.00

110

THERMOFORMING MACHINE

0.27

Thermoform

Thermoforming Machine

Memo

Thermoform as per Dwg. D4635-2 and Folio FTA148

Dwg. Rev. *EF* *91*Folio Rev. 5

NOTE: Check moulds prior to using to ensure proper placement of add-ons.
Visually inspect for proper formation and texture

130

0.00

130

HAND FINISHING THERMOFORMING

1.23

Thermoform

Thermoforming Machine

Memo

Trim to Finished Dimensions

DAS
07
9-89

16/07/15

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
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Page 3

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC6- Inspect dimensions to drawing	0.00							16 9-89
140	Dimensional Inspection								16/12/12
QC	Memo	0.00							
Quality Control	Fill out Inspection Sheet Rev A								
150	QC5- Inspect part completeness to step on W/O	0.00							27 9-89
150									
QC	Memo	0.01							
Quality Control									
160	Packaging	0.00							27 9-89
160									
Packaging	Memo	0.00							
Packaging									

AUG 12 2016

AUG 12 2016

PPP 149155
 PPP 149156

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only



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Revision ID: Stop ***NS2***
Item Name: Fwd Ceiling Panel, RH
Start Date: 7/12/2016 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 7/19/2016 Req'd Qty: 4.00 ***4*** Customer:
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC21- Final Inspection - Work Order Release	0.00					DAS 21 9-89		AUG 15 2016
170									
QC	Memo	0.07							
Quality Control									

DAS
21
9-89
AUG 15 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, July 19, 2016 2:45:06 PM

Page 1

Work Order ID: 149090

149090

Parent Item: D4635-2

D4635-2

Parent Item Name: Fwd Ceiling Panel, RH

Start Date: 7/12/2016

Required Date: 7/19/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev. A New Issue 12/05/07 DL VERIFIED BY:JLM IPP Rev. B
Dwg. Update 12/11/08 DL IPP Rev C Dwg. Update
13/07/09 DL IPP Rev D Dwg. Update, Material
Change 13/12/18 DL IPP Rev. E Dwg. Update 14/01/09
DL IPP Rev. F Dwg Update 15/01/27

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased	No			100	sf	380.9000	25.27	101.08			DAS 07 9-89

MI FXS 093-F6006-07

GE PLASTICS LEXAN SHEET (Grey)

**

16/08/13

Location

Loc Qty

Loc Code

MAT023

380.9

m129738

380.9

~~05.07.13~~
55 sq ft

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval 		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				OTHER : _____			

DART AEROSPACE LTD		Work Order: 149090
Description: RH Fwd Ceiling Panel		Part Number: D4635-2
Inspection Dwg: D4635	Rev: E F	Page 1 of 1

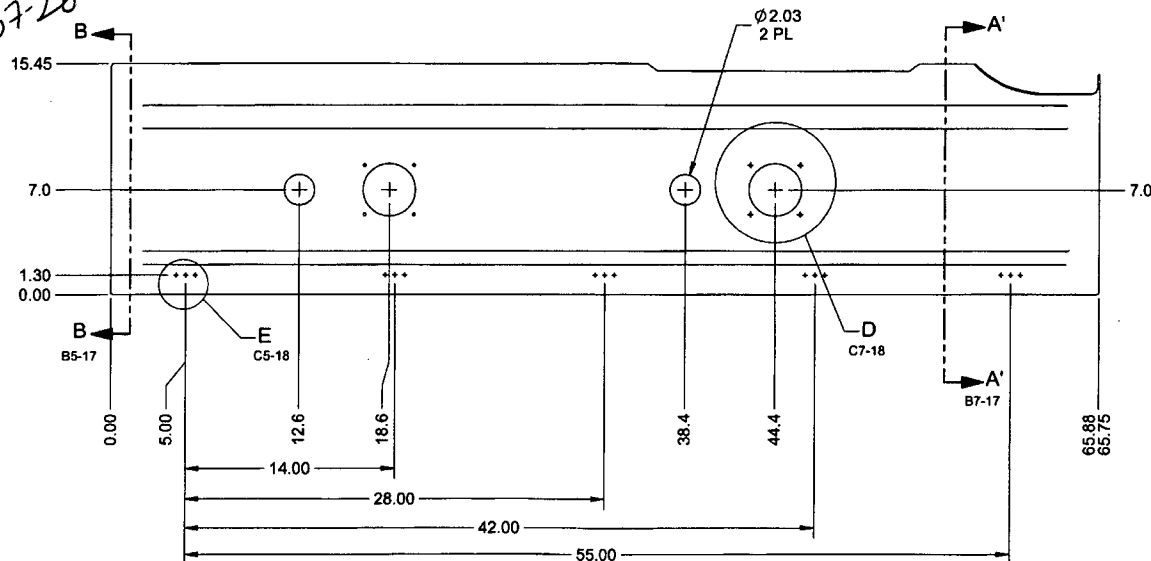
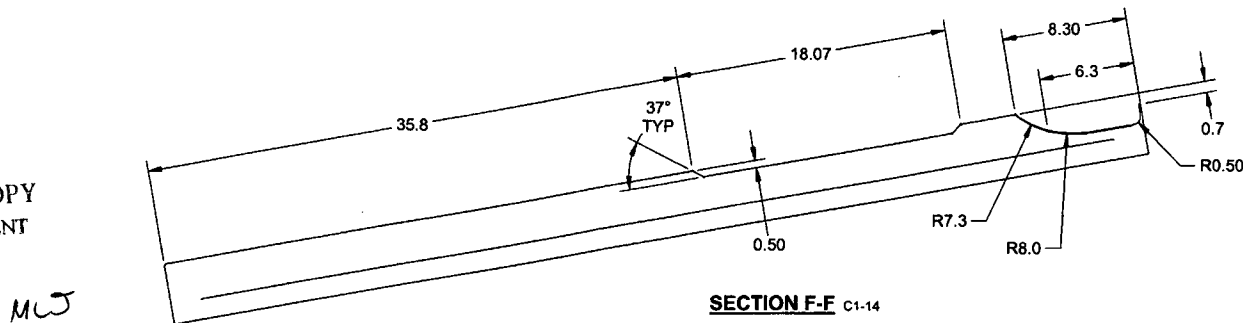
FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
14.00	+/-0.030	14.0	✓		T.M	
28.00	+/-0.030	28.0	✓		T.M	
42.00	+/-0.030	42.0	✓		T.M	
55.00	+/-0.030	55.0	✓		T.M	
5.00	+/-0.030	5.0	✓		T.M	
12.6	+/-0.100	12.6	✓		T.M	
18.6	+/-0.100	18.6	✓		T.M	
38.4	+/-0.100	38.4	✓		T.M	
44.4	+/-0.100	44.4	✓		T.M	
1.3	+/-0.100	1.32	✓		T.M	
7.0	+/-0.100	7.0	✓		T.M	
7.00	+/-0.030	7.0	✓		T.M	
Ø2.03	+0.012/-0.001	2.031	✓		ED-G	
Ø0.191	+0.005/-0.001	0.191	✓		ED-G	
Ø3.50	+0.012/-0.001	3.506	✓		ED-G	
3.300	+/-0.010	3.295	✓		ED-G	
1.650	+/-0.010	1.651	✓		ED-G	
Ø0.129	+0.005/-0.001	0.130	✓		ED-G	
1.300	+/-0.010	1.309	✓		ED-G	
0.650	+/-0.010	0.655	✓		ED-G	
0.35 - 0.40	+/-0.030	0.37	✓		ED-G	
0.30	+/-0.030	0.325	✓		ED-G	
0.50	+/-0.030	0.515	✓		ED-G	

Measured by: DAS	Audited by: DAS	Preliminary Approval:
Date: 16/02/12	Date: AUG 12 2015	Date:

Rev	Date	Change	Revised by	Approved
A	14.07.29	New Issue	KJ	

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 149090 MJS
160720



NOTES:

1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK
(REF DART SPEC MLEXS.093-F6006-07)

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: N/A

7) WEIGHT: 4.37 lbs

8) TEXTURE ON THIS SIDE

9) TRIM D4635-2 PER TOOL DT9840

10) THERMOFORM D4635-2 PER QSI 022 USING DT9847 TOOL

MIN. THICKNESS AFTER FORMING:

SHADED AREA = 0.040

RIDGES/EDGES = 0.060

ELSEWHERE = 0.070

D4635-2 RH, FWD CEILING PANEL

RELEASED

2015 JAN 26

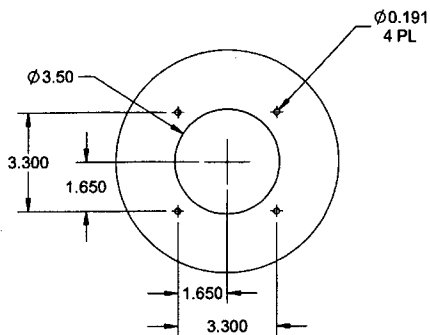
APPROVED

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DRAWN	RF		
CHECKED	AK	DRAWING NO.	REV. F
MFG. APPR.	DL	D4635	SHEET 14 OF 18
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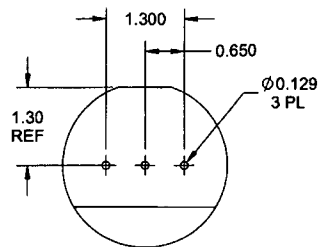
2015 JAN 26 *gr*

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	CHECKED	AK	DRAWING NO.	REV. F
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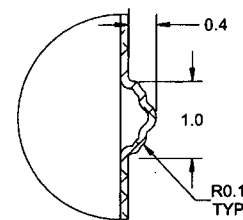
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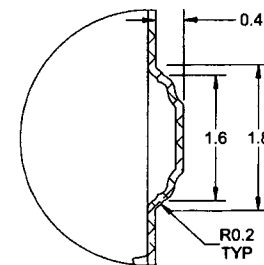
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SCALE 2X
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B3-14
B5-15
B5-16



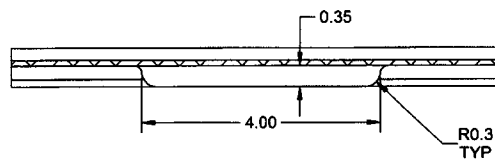
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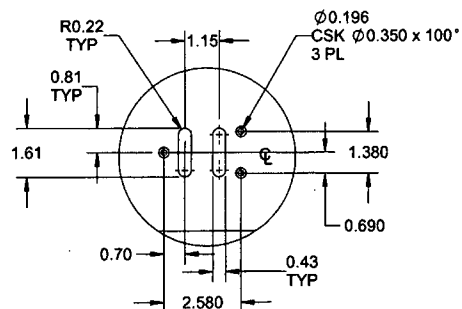
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B4-17
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C7-17



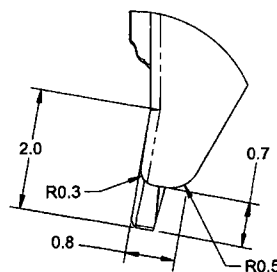
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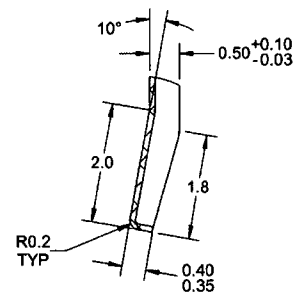
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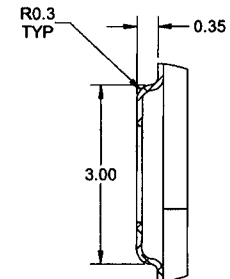
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DETAIL O
SCALE 2X
D2-17
D3-17
B5-17



DETAIL P
SCALE 4X
C2-17

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